Exhibit 1

IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF PENNSYLVANIA

POLYSCIENCES, INC.	:	
Plaintiff,	:	Civil Action No. 20-cv-03649-PBT
v.	:	
JOSEPH T. MASRUD,	:	
Defendant.	:	

DECLARATION OF JOSEPH T. MASRUD
IN OPPOSITION TO PLAINTIFF'S MOTION FOR A TEMPORARY RESTRAINING ORDER AND PLELIMINARY INJUNCTION

I, Joseph T. Masrud, pursuant to 28 U.S.C. § 1746, hereby declare as follows:

1. I am over 21 years of age and am a resident of the State of Minnesota. I am competent to execute this Declaration and have personal knowledge of the matters set forth herein.

2. I submit this declaration in opposition to Polysciences' motion for a temporary restraining order and preliminary injunction ("Motion"). Based on the facts set forth herein, and the accompanying Memorandum of Law, I respectfully request that this court deny Polysciences' request for a temporary restraining order and/or preliminary injunction.

3. I have a Bachelor of Science degree in Chemistry from the University of Minnesota and a Master of Business Administration degree from Case Western Reserve University.

4. I was hired by Polysciences in January 2014, as a Business Development Manager in the Lab Products Group. I was subsequently promoted to Business Manager and

then to Director. In these roles I was responsible for sales and marketing of Polysciences' laboratory products.

5. Polysciences is a chemical manufacturing company that produces and sells a broad array of products for both industrial and scientific uses. One of their products is Polyethylenimine ("PEI"), which is a chemical that has been used for decades for many industrial uses (e.g. in detergents, adhesives, as a water treatment agent, and in cosmetics) and in bioprocessing as a chemical transfection reagent.

History of PEI and its Use as a Transfection Reagent

6. Instructions to make PEI have been publicly available since 1983. See **Exhibit "A"** (Ryuichi Tanaka et al., *High Molecular Weight Linear Poly(ethylenimine) and Poly(N-Methylethylenimine)*, Macromoleculates, June 1, 1983 at 849-853).

7. From July 7, 1995 through July 7, 2015, Polyplus-transfection SA ("Polyplus"), a French company, held a "use patent" for the use of PEI as a transfection agent. **Exhibit "B"** (Patent No. US6013240A, Application USO8/765,679). A use patent provides protection to a company who discovers that a patented product can be used for a purpose that is different from what the patent owner contemplated.

8. When used as a transfection reagent, PEI facilitates inserting DNA into cells to study the function of genes or gene products, and is used to develop new drugs and gene therapies for life-saving medical procedures.

9. It was only beginning in 2015 that companies besides Polyplus could sell PEI for use as a transfection agent.

10. Numerous articles were published prior to Polyplus' use patent expiring, about how to prepare PEI specifically as a transfection reagent. By way of example only, *see, e.g.*,

Exhibit "C" (Abdennaji Adib et al., *Method for Manufacturing Linear Polyethylenimine (PEI) for Transfection Purpose and Linear PEI Obtained with Such Method,*" August 5, 2010, patents.google.com/patent/US2010019788A1/en); **Exhibit "D"** (Blandine Brissault et al., *Synthesis of Linear Polyethylenimine Derivatives for DNA Transfection,*" Biconjugate Chem. 2003,14, 3, 581-587 (May 1, 2003); **Exhibit "E"** (Ji Hoon Jeong et al., *DNA Transfection Using Linear Poly(Ethylenimine) Prepared by Controlled Acid Hydrolysis of Poly(2-Ethyl-2-Oxazoline*, Journal of Controlled Release Vol. 73, Issues 2-3, pp. 391-399, June 15, 2001); **Exhibit "F"** (Mini Thomas et al., *Full Deacylation of Polyethylenimine Dramatically Boosts Its Gene Delivery Efficiency and Specificity to Mouse Lung*, Proceedings of the National Academy of Science, April 19, 2005, 102(16) 5679-5684); **Exhibit "G"** (Van Kuringen et al., *Partial Hydrolysis of Poly(2-ethyl-2-Oxazoline) and Potential Implications for Biomedical Applications?*, Macromolecular Bioscience Vol. 12, Issue 8, pp. 1114-1123 (August 2012), first published July 6, 2012); **Exhibit "H"** (Ren-Hua Jin and Jian Jun Yuan, *Hierarchically Structured Silica from Mediation of Linear Poly(ethyleneimine) Incorporated with Acidic/Basic Additives*. Polymer Journal Vol. 39, Issue 5, pp. 464-470 (April 2007); **Exhibit "I"** (Laurence Delafosse, et al. *Comparative Study of Polyethylenimines for Transient Gene Expression in Mammalian HEK293 and CHO Cells*, Journal of Biotechnology, Vol. 227, pp. 103-111, June 2016; **Exhibit "J"** (Zuzana Kadlecova, et al. *Poly(Ethyleneimine)-Mediated Large-Scale Transient Gene Expression: Influence of Molecular Weight, Polydispersity and N -Propionyl Groups.* Macromolecular Bioscience, Vol. 12, No. 5, pp. 628-623, May 2012). *See* also Exhibit B (Polyplus use patent), which is yet another public source for information about using PEI for transfection, and shows multiple molecular weights of PEI that are effective for transfection as well as how to use PEI in gene transfection. *Id.* at p. 1 (claim 5) and 7 (Example 10).

11. In addition, the qualitative molecular weight distribution of Polysciences' PEI Max is also publicly available. **Exhibit "K."**

12. The manufacture of PEI transfection reagents is not difficult. There are four ingredients or raw materials: (1) Pol(2-ethyl-2-oxazoline) ("PEOx"), (2) water; (3) hydrochloric acid ("HCl"), and (4) a wash solvent. *See, e.g.*, Exhibit "D" at pp. 1, 2; Exhibit "E" at p. 2; Exhibit "F" at pp. 1, 2; Exhibit "G" at p. 2, 3; Exhibit "H" at p. 2.

13. The primary ingredient is PEOx. Contrary to Polysciences' motion, the source and price of PEOx is no secret, and can easily be found on-line. See, e.g. **Exhibit "L"** (compilation of website pages identifying sources and prices for PEOx). Distilled water, HCl, and wash solvents can also be easily sourced through internet searches for suppliers.

14. As explained in the publications cited in this Affidavit, you simply mix the three ingredients in specified amounts and heat the mixture to near boiling for at least several hours, which forms a wet mixture of PEI, HCl, and water. You then remove residual acid and water from the wet PEI mixture and are left with PEI powder. Exhibit "D" at p. 2; Exhibit "E" at p. 2, Exhibit "F" at p. 2; Exhibit "G" at pp. 3; Exhibit "H" at p. 2.

15. All of this can be accomplished using standard equipment. Time, temperature, concentration of water and acid can be tweaked until you reach the desired results.

Polyscience's PEI Transfection Reagent Product Offerings

16. Polysciences had been manufacturing and selling PEI products for years prior to my hire in 2014. Those products included (1) Linear PEI MW 25,000 (PN23966) and (2) PEI MAX®, MW 40,000 HCl salt (PN 24765) ("PEI Max"), both of which are a powder, and both of which could be used for industrial or transfection purposes. Because transfection requires PEI to

be in liquid form, PEI Max was more suitable as a transfection agent because it dissolves easier in water.

17. When Polyplus' use patent expired in July 2015, I was involved in the decision to specifically market Polysciences' PEI products as a transfection reagent to be used in the research and development ("R&D") of drug and gene therapies.

18. Once Polysciences was able to market its PEI for transfection, it offered its customers the option to buy it in powder form (PEI Max/Linear PEI) or a "ready to use" liquid form. The liquid "ready to use" versions were sold under the "Transporter" mark [(1) Transporter 5™ Transfection Reagent 5 ml (PN 26008-5) and (2) Transporter 5™ Transfection Reagent 50 ml (PN 26008-50)], both of which were based on Polysciences' PEI Max.

19. Contrary to Polysciences' suggestion otherwise, the process of transforming the PEI powders into liquid form is not a trade secret. The instructions to do so are available on Polysciences website, and throughout my tenure with Polysciences it readily gave these instructions to actual and prospective customers in the event that they preferred to buy the less expensive powder and transform it themselves into a liquid. **Exhibit "M"** (24765_usage_guide.pdf, downloaded from Polysciences website on August 4, 2020 at https://www.polysciences.com/skin/frontend/default/polysciences/pdf/24765_usage_guide.pdf).

20. The instructions for this process are also available through additional public means. *See, e.g.* **Exhibit "N"** (Patti A. Longo, et al., *Transient Mammalian Cell Transfection with Polyethylenimine (PEI)*, Methods in Enzymology, Vol. 529, pp. 227-40 (2013)) at p. 3; **Exhibit "O"** (Martin S. Taylor, et al., *Characterization of L1-Ribonucleoprotein Particles."* Transposons and Retrotransposons**,** Vol. 1400, pp. 311–313, Springer New York (2016)) at p. 4;

Exhibit "P" (Yong Hong Chen, et al. *Adeno-Associated Virus Production, Purification, and Titering*, Current Protocols in Mouse Biology, Vol. 8, No. 4, p. e56, Dec. 2018) at p. 10.

21. At all times during my tenure with Polysciences, and to date, Polysciences publishes the price at which it sells the aforementioned PEI products. *See, e.g.* **Exhibit "Q"** (Polysciences website pages recovered from web.archive.org showing price of PEI Max on May 9, 2019 and Transporter 5 on December 4, 2018); **Exhibit "R"** (Polysciences website pages dated respectively August 5, 2010 and August 4, 2020 showing current price of PEI Max and Transporter 5 respectively at https://www.polysciences.com/default/catalog-products/life-sciences/transfection-reagents/polyethylenimine-max-mw40000-high-potency-linear-pei/ and https://www.polysciences.com/default/transporter-5-transfection-reagent).

22. Polysciences eventually created a PEI powder and liquid transfection reagent (similar to PEI Max and Transporter 5) through a "Good Manufacturing Practice" ("GMP") compliance process, creating a MAXgene™ GMP powder and liquid that it could market and sell for use in clinical trials and the commercial manufacturing of drugs and gene therapies.

23. Polysciences did not sell any GMP products prior to the termination of my association with the company, nor did it set a price for the GMP products during my tenure.

Termination of Polyscience's Employment/Consulting Relationship

24. In or about January 2019, I informed Polysciences that I intended to move from Philadelphia (where Polysciences is based) to Minnesota, and requested to work for Polysciences remotely. My last date of employment with Polysciences was June 26, 2019.

25. Polysciences hired me as a consultant on or about July 1, 2019, and agreed to an initial term through December 30, 2019, to be renewed automatically each year for a one-year term upon mutual agreement.

26. I formed Serochem LLC in June 2019, through which to consult for Polysciences and to potentially develop bioprocessing products and services that I could sell through Polysciences.

27. I emailed the "Polysciences PEI Quality Guide" to myself on August 20, 2019, when I was a consultant working remotely for Polysciences, to make edits to the document from my home computer.

28. While Polysciences claims in its Motion that the "Polysciences PEI Quality Guide" was a "unique compilation of data that Polysciences has maintained as a trade secret[,]" in actuality it was a document that was intended to be provided to existing and potential customers (irrespective of the existence of a non-disclosure agreement) to help them decide which PEI product to select for their purpose. In addition, the information identified on the Guide was not treated by Polysciences as confidential during my tenure, as evidenced by the following:

a. Product specifications for products within the Lab Products group at Polysciences were freely provided upon request to potential and existing customers.

b. Polysciences published a Certificate of Analysis for a batch of PEI Max on its website which provides product specifications and the test results, and it may have published others. *See, e.g.,* **Exhibit "S"** (Polysciences website page, Certificate of Analysis for Polyethyleneimine 'Max'(40 000m.W. Linear, Lot 706510 at https://www.polysciences.com/skin/frontend/default/polysciences/pdf/24765_exca.pdf);

c. Polysciences publishes a Transporter 5 Flyer that contains additional marketing information regarding Transporter 5 including the performance specification (IgG Expression) that Polysciences now appears to claim is confidential. **Exhibit "T"**

d. Polysciences publishes the heavy metal specifications for MAXgene on its website. *See, e.g.,* **Exhibit "U"** (MaxGene GMP Product page published on Polysciences website at https://www.polysciences.com/skin/frontend/default/polysciences/pdf/MAXgene.pdf).

29. Since the conclusion of my consultancy with Polysciences, I have not used or disclosed the Polysciences PEI Quality Guide, or the information contained therein, for any purpose.

30. At no time following the termination of my employment with Polysciences in June 2019, or the conclusion of my consultancy with Polysciences in September 2019, did anyone from Polysciences request that I return any information (other than the company laptop and badge) to Polysciences or request that I return and/or destroy any electronic information that may have remained in my possession.

31. On September 6, 2019, Polysciences terminated my services.

32. Polysciences did not sell any GMP products prior to the termination of my association with the company.

Serochem's Development of PEI Transfection Products

33. Shortly after Polysciences terminated my consulting agreement, Serochem began the process of researching and developing its own non-GMP non-medical grade PEI transfection products in powder (PEI Prime Powder) and a liquid form (PEI Prime AQ) to be used in R&D applications.

34. Serochem used only publicly available information and general chemistry and biology knowledge, including publications attached to this Declaration to develop Serochem's products.

35. Serochem launched its PEI Prime Powder for sale on its website on June 7, 2020, and launched PEI Prime AQ sometime between June 8, 2020 and June 12, 2020.

36. While Serochem's products compete with Polysciences' PEI Max and Transporter 5 products, they are not identical. Performance testing by a third-party testing facility demonstrates, for example, that Serochem's PEI Prime performed statistically different from and, on average 48% better than, PEI Max in HEK293 cells. **Exhibit "V"** (Serochem HEK293 Performance Data published on the Serochem website at https://www.serochem/post/pei-prime-performance-datea-hek293).

37. The fact that Serochem recommends not to freeze PEI Prime solution formulated from the powder, and to store the formulated solution at 4° C for 6 months, does not, as Polysciences' asserts, suggest that Serochem used Polysciences' confidential information.

38. PEI solution storage conditions (refrigerate don't freeze) are not confidential or proprietary. Not only has Polysciences published the storage recommendations of PEI Max on its own website, many publications also explicitly state that Polyscience's PEI Max solutions should be refrigerated, not frozen. *See, e.g.*, **Exhibit "W"** (Printout dated Aug. 4, 2020 from Polysciences website, https:/www.polysciences.com/default/transporter-5-transfection-reagent), stating "Storage: Store at 4 °C; do not freeze . . . .";[1] Exhibit "N" at p. 3 noting that PEI is "Stable at least 9 months at 4 °C" and that "PEI 'Max' cannot be frozen!"); Exhibit "N" at p. 4 stating with respect to the storage of a PEI Max solution "store at 4 °C. NEVER FREEZE PEI working stock. Working stocks can be used for up to 6 months if stored at 4 °C."

39. In an effort to support myself and my family, I have invested a significant portion of my savings to get Serochem off the ground.

[1] 4° C represents the standard temperature for refrigeration.

40. To date, Serochem has earned under $600 from the sale of its PEI products.

Dated: August 27, 2020

Joseph T. Masrud

Exhibit 2

tebu-bio blog

acting and reacting in life sciences and biotechnologies

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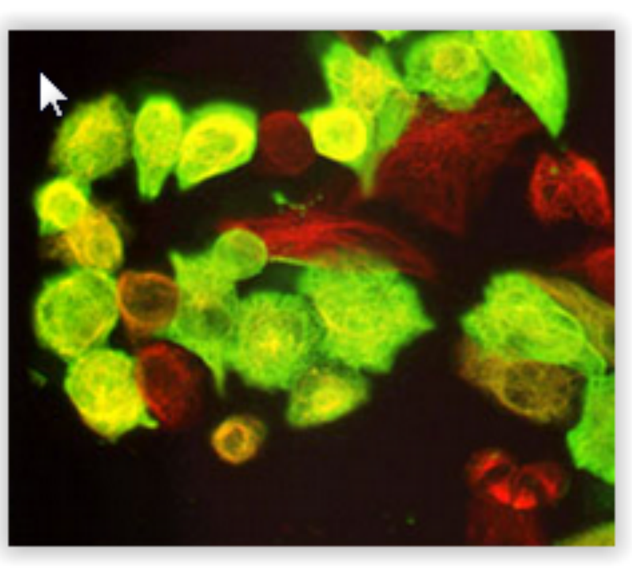
02/07/2015 | BY MARK LIVINGSTONE | NO COMMENTS | GENE EXPRESSION - MOLECULAR BIOLOGY

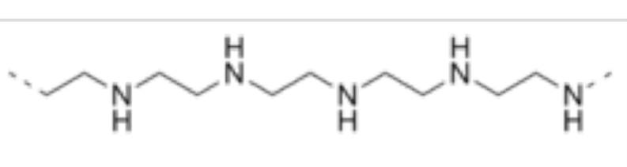
PEI transfection patents to expire



July 7, 2015 marked the 20-year anniversary of the filing dates of both the U.S. patent and European patent limiting the use of PolyEthylenImine (PEI) as a transfection reagent. Coincidentally, both U.S. and European patents generally have a term of 20 years from the filing date.

Many academic researchers have been ignoring these patents and/or have been sharing protocols online and publishing articles explaining how cost-effective and simple PEI-mediated transfection can be. For example, the most commonly used PEI, catalog nr. 07923966-2 (Polysciences), is a linear form with molecular weight of 25,000 Da. The 2 gram bottle of PEI powder can be used to make a few liters of transfection reagent, so depending on which protocol is used the cost can be about 0.01% that of commercially-available transfection reagents.

PEI is a simple polymer with an amine group and two carbon spacer that is thought to bind to DNA to produce positively charged particles that can enter the cell.



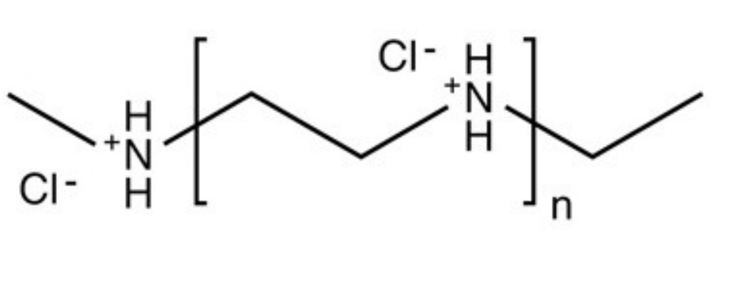
PEI structure. Source: Wikipedia.

Some of the negative aspects of PEI compared to more sophisticated transfection reagents are:

1. PEI tends to be rather cytotoxic. While PolyJet™ DNA In Vitro Transfection Reagent is composed of proprietary bio-degradable polymers designed to greatly reduce cytotoxicity, standard PEI has been shown to induce apoptosis in a variety of human cells.
2. PEI is difficult to dissolve. Linear PEI is solid at room temperature and somewhat soluble in hot water and low pH. A typical protocol might involve dissolving 8mg of PEI in 25mL of water, a process that may take many hours or days and/or result in a non-uniform solution that cannot be sterile filtered.

   To solve this problem, Polysciences has released the a much more soluble hydrochloride salt form (catalog nr 07924765-2), called Polyethylenimine "Max", (Mw 40,000) – High Potency Linear PEI. This MW 40,000 form corresponds to the MW 25,000 polymer length in free base form, with the salt accounting for the molecular weight difference.

Looking through the literature one might reach the conclusion that PEI is a universal transfection reagent suitable for transfecting cultured cells or use *in vivo*.



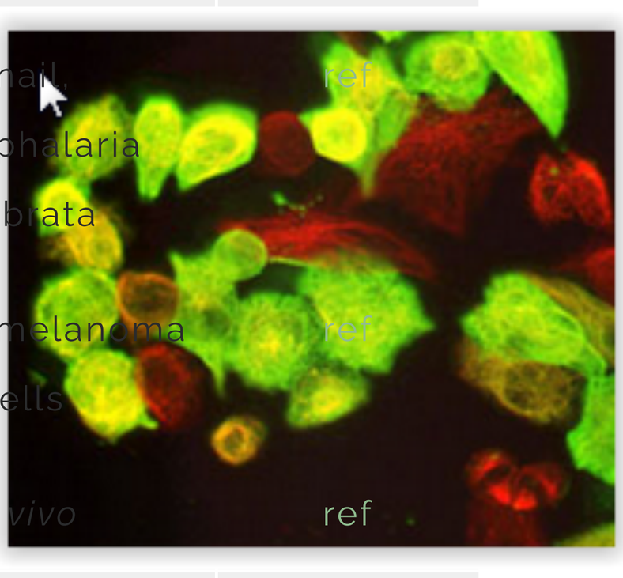
PEI max structure.

Here's a summary of some of the earlier scientific articles using PEI for various transfection applications:

Nucleic Acid	Cell Type	Publication
68-mers	Hepatocytes	ref
antisense oligos	Neurons	ref
BAC DNA	mouse (*in vivo*)	ref
DNA	293E	ref
DNA	Adult neural stem cells	ref
DNA	Brain derived cells	ref
DNA	chicken (*in vivo*)	ref
DNA	CHO cells	ref
DNA	Cos-1	ref
DNA	Cos-7 (nuclei)	ref
DNA	Embryonic neurons (*in vivo*)	ref
DNA	Fetal mouse liver	ref
DNA	HeLa cells	ref
DNA	Human monocytes	ref
DNA	HUVEC	ref
DNA	L929 cells	ref
DNA	LNCaP cells	ref
DNA	Mouse brain	ref
DNA	Mouse lung	ref
DNA	Mouse lung	ref
DNA	Murine adult neural stem cells	ref
DNA	Ovarian carcinoma cells	ref
DNA	Postmitotic neurons	ref
DNA	Pseudocystic tumor cells	ref
DNA	Rat (*in vivo*)	ref
DNA	Rat brain	ref
DNA	Rat fetal hypothalamic cells	ref
DNA	Rat kidney	ref
DNA	Rat kidney	ref
DNA	WERI-Rb1 retinoblastoma cells	ref
DNA	Xenopus tadpole brain	ref
dsRNA and siRNA	Snail, Biomphalaria glabrata	ref
modified siRNA	Murine melanoma cells	ref
siRNA	*in vivo*	ref
siRNA	Pancreatic cancer cells	ref
YAC	HT1080 cells	ref

In addition to use as a direct transfection reagent, PEI is used for a variety of "combination" gene delivery methods. Adenofection for example makes use of PEI to permit delivery of large plasmids/BAC/YAC into cells by non-covalently coupling of the DNA to an adenovirus. A variety of other approaches make use of modified (*e.g.* PEGylated) PEI for gene delivery or have targeted PEI to specific tissues with antibodies or proteins.

In the list of applications, mRNA delivery into cells seems conspicuously absent. Indeed at least one paper indicates that PEI-mediated transfection of mRNA is very inefficient. For mRNA transfection, researchers have better success with the Stemfect™ RNA Transfection Kit or the mRNA-In Transfection Reagent.



HA tagged beta-tubulin cDNA was delivered into CHO cells. HA-beta-tubulin (Green) – Endogenous alpha-tubulin (Red).

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PEI | TRANSFECTION REAGENTS

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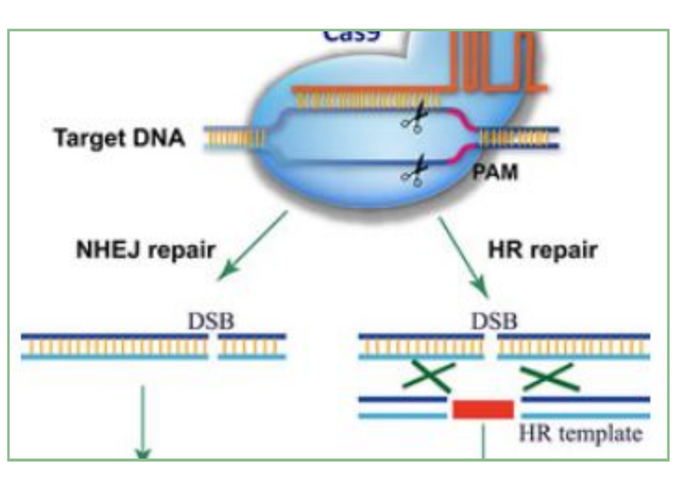

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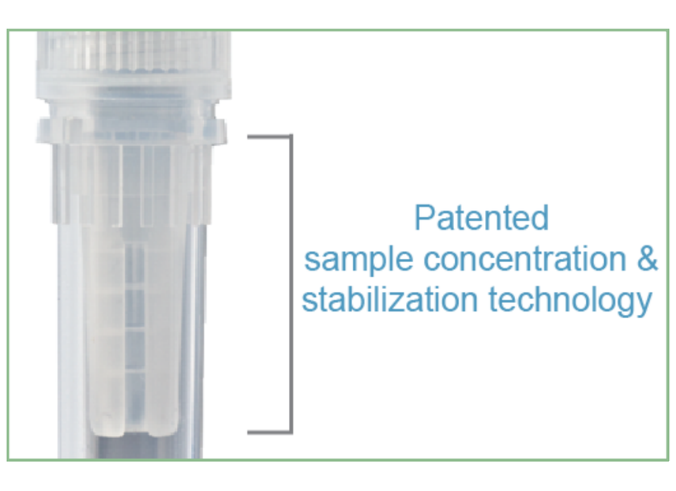

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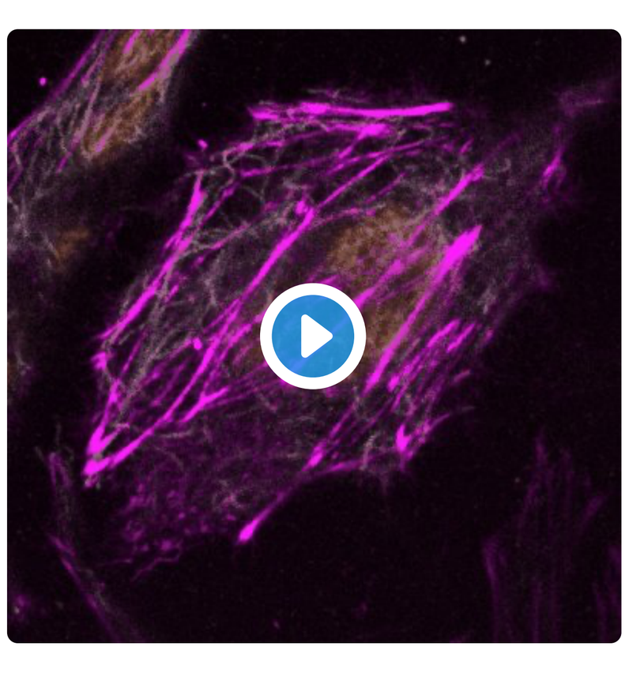

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Apr 15, 2020

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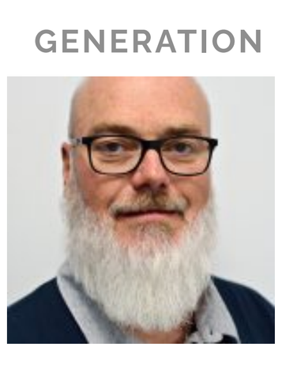

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Exhibit 3

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July 8, 2020

Via FedEx and First-Class Mail
Joseph T. Masrud
c/o Serochem
7900 International Drive, Suite 300-7001
Bloomington, MN 55425

Re: Cease and Desist sale of PEI based transient transfection reagents

Dear Mr. Masrud:

Please be advised that the undersigned represents Polysciences, Inc. ("Polysciences"). Please direct all commutations concerning this matter to the undersigned.

We write to demand that Serochem and you immediately cease and desist from the sale of your recently launched PEI (Polyethylenimine) based transient transfection reagents, namely Serochem's PEI Prime Powder and PEI Prime AQ. Both of these products appear to be direct knock offs of the Polysciences PEI products that you worked on while employed by Polysciences. Specifically, in your last role at Polysciences as Director of Lab Products you were focused on the development and sales of Polysciences' PEI powder and liquid transfection reagents. In that role you had access to, among other things, manufacturing instructions, raw material suppliers, testing procedures, specifications, customer lists, and other confidential information. It is clear that you are now attempting to offer knock off products. Indeed, your description of the products lists indicates they are 'sterile filtered' and 'pH neutralized' which are critical parts of the Polysciences' production process you learned during your tenure with Polysciences.

As you no doubt recall, as a condition of your employment you executed a Confidentiality and Proprietary Agreement dated January 6, 2014, (the "Confidentiality Agreement") wherein you

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ATTORNEYS AT LAW

agreed, among other things, that you would not "during or after the term of employment with Polysciences, use any Confidential Information and/or Proprietary Information of Polysciences and/or disclose such Confidential Information and/or Proprietary Information to any third party." Given your intimate knowledge of confidential and proprietary information regarding the Polyscieinces PEI powder and liquid products and your launch of nearly identical products, it is clear that you have violated this provision. As you should also recall the Confidentiality Agreement also contains a provision where you consent to jurisdiction in the Courts of the Commonwealth of Pennsylvania for claims of breach of the Confidentiality Agreement and further consent to the grant of a preliminary and permanent injunction against a breach that has "occurred or is threatened" upon proof satisfactory to such Court. Be advised that if we do not promptly receive confirmation that Serochem and you will cease and desist from selling the PEI Prime Powder and PEI Prime AQ product, Polysciences will take all appropriate action under the Confidentiality Agreement and applicable state and federal law, and seek all available remedies to protect its interests, including its attorney's fees and costs incurred in such action, as provided under the Confidentiality Agreement.

We look forward to your prompt response.

Very truly yours,

s/Bret A. Puls

Bret A. Puls

Exhibit 4

OBERMAN THOMPSON, LLC

Attorneys at Law

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July 16, 2020

Bret A. Puls
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Suite 2000
Minneapolis, MN 55402-3338

Email: bpuls@foxrothschild.com

SENT BY E-MAIL ONLY

Re: Polysciences, Inc. / Joseph T. Masrud and Serochem LLC

Dear Bret:

I am writing in response to your July 8 letter to Mr. Masrud and as a follow up to our July 10 phone call. I appreciated your willingness to have an open and transparent discussion. This letter is intended to continue in that vein. Also, Mr. Masrud had an excellent and trusting relationship with Polysciences' owners and others at Polysciences. Although he would have preferred an informal phone call from one of them rather than your cease and desist letter, he appreciates the opportunity to address Polysciences' concern that he and Serochem improperly used its confidential information.

The short answer is that they did not. After doing its own R&D process, which was based entirely on information that does not belong to and is not proprietary to Polysciences, Serochem developed its own products. They made these products using only publicly available information and general chemistry knowledge. They did not use Polysciences' allegedly confidential information, and have not shared Polysciences' allegedly confidential information with any third party. They respectfully decline Polysciences' request that they cease and desist from selling the PEI Prime Powder and PEI Prime AQ product.

As we discussed on Friday, I am providing you much more information in this letter than you and I typically see in response to cease and desist letters. Without waiving any other factual,

legal or equitable defenses or other claims that my clients have, please share and discuss the following information with your client and its owners.

Facts

In the unlikely event this does go to litigation, Mr. Masrud will sign an Affidavit that includes the following factual information and will be able to provide support for all of it.

1. Serochem's PEI Prime Powder and PEI Prime AQ products are not "knock offs" of Polysciences PEI products. They are materially different from the products that Polysciences sells and provide a significant performance benefit over Polysciences' products at a lower price point. The main reason that Serochem sells its products for less than Polysciences sells its products is that Polysciences raised its prices in order to increase its profits. This was done at the expense of its customers and to the detriment of the work they are doing to advance medical research in treating cancer and other fatal medical conditions. This concern was discussed by Mr. Masrud and his boss on several occasions, and Mr. Masrud believes that is one of the reasons why Polysciences' terminated the relationship.

2. Mr. Masrud and Serochem did not use any of Polysciences information that is even arguably confidential – nor did they need to. For example:

a. Polyethylenimine (PEI) is a transfection reagent. There are hundreds or even thousands of academic papers that discuss PEI.

b. PEI's use as a transfection reagent is well documented in academic literature and patent records. There are several well-cited, publicly available methods to prepare PEI for transfection. Among others, Polyplus-transfection SA, a French company, held a use patent for PEI in transfection applications until 2015, at which time the patent expired.

c. Polysciences is only one of at least four companies that manufacture and sell PEI, and PEI is only one of Polysciences' several hundred products.

d. Serochem did not use any process that was unique to Polysciences, and specifically did not use Polysciences' allegedly confidential information in its R&D or share Polysciences' allegedly confidential information with any third party. It created its own PEI based transfection reagent products entirely through its own R&D process.

e. Serochem researched and created its manufacturing methods for a PEI transfection reagent only through the use of publicly available knowledge or analytical data that it obtained through publicly available means. It developed both the PEI Prime Powder and PEI Prime AQ

products using a rational, trial-and-error R&D approach, which relied on information that is widely available and within general chemistry knowledge. For example:

- It surveyed published literature to determine the most appropriate synthesis path.
- It used general chemistry knowledge to determine appropriate equipment to transfer the published methods to production.
- All of its equipment is general-purpose, widely available laboratory equipment that its processes use in a standard way.
- Its manufacturing processes have evolved in response to its own recorded observations and analytical data, and this has led to changes in its equipment parameters and processes.
- It tested many raw materials, all of which were sourced from publicly known vendors. The raw materials, as well as methods to manufacture PEI powder, have been published.
- The phrases "sterile-filtered" and "pH neutralized" that are quoted in your July 8 letter are common scientific terms, which are not unique to Polysciences. These terms appear in many academic publications in conjunction with transfection.
- Mr. Masrud did not learn about sterile filtration or pH neutralization while employed by Polysciences. These concepts are common general chemistry and biology terms, and are very public. Even Polysciences publications show that these phrases are not private or otherwise confidential. The phrase "sterile-filtered" is used on Polysciences' public PEI MAX product page; and the concept of pH neutralization has been published on Polysciences' website in PEI related literature.
- The materials and methods used by Serochem to prepare PEI Prime AQ, including sterile-filtration and pH-adjustment, have been published as well.

3. You also raised concerns about the timing or Mr. Masrud's move and the creation of Serochem, which Mr. Masrud would like to address. In fact, his plan to move, contract negotiations, and creation of Serochem were communicated in a timely, clear, and transparent manner to Polysciences, and Polysciences actually did business with Serochem. For example:

a. In early January of 2019, Mr. Masrud alerted Polysciences that he and his family had decided to move out of the Philadelphia area on July 1st, 2019. Polysciences was given roughly 6 months' notice to prepare a transition plan. He also expressed his interest in continuing a relationship with Polysciences remotely.

b. Mr. Masrud and Scott Knorr exchanged several iterations of contract negotiations between January and April of 2019, which did not result in an agreement between the parties. During these negotiations, Mr. Masrud did inform Mr. Knorr that he intended to start his own business that would focus on bioprocessing products and services. At that point, he did not intend to compete with Polysciences. He was trying to enter into an agreement with it, but he and Mr. Knorr were not able to reach any agreement.

c. Mr. Masrud and Polysciences, through Andrew Ott (Jennifer Tenfelde was also with them), discussed in June, 2019 that Mr. Masrud would consult for Polysciences, beginning on July 1, 2019, through a new entity. They did not enter into a formal agreement. (You mentioned a one-page summary of those discussions, and said you would send it to me. Please do.) The new entity was formed as Serochem LLC on June 5, 2019. Polysciences was fully aware of this and approved having Mr. Masrud create a new entity in June because Polysciences intended to purchase services from that entity beginning on July 1, 2019. Since the relationship between Polysciences and Serochem was to begin on July 1, 2019, it was necessary for Serochem to be formed in June to allow sufficient time for the building of administrative infrastructure (LLC documents, bank account, accounting software, credit card, etc.) so that it could consult for Polysciences. In June of 2019, Mr. Masrud was asked by Mr. Ott if his new company was "set up yet," further confirming that Polysciences both knew of, and approved, the formation of Serochem in June.

d. Serochem's first invoice for the month of July, 2019 was sent to Polysciences on July 2, 2019, yet again confirming that the companies had agreed to have a consulting relationship. Serochem had to be formed in June in order for a seamless transition to occur.

4. Serochem did not compete, intend to compete, or plan to compete with Polysciences while it was providing consulting services to Polysciences. Serochem's activities in June of 2019 consisted solely of a buildup of administrative infrastructure for the purpose of servicing Polysciences on July 1, 2019. Serochem consulted for Polysciences from July 1, 2019 until September 6, 2019, when Polysciences unilaterally and abruptly terminated the relationship.

5. Mr. Masrud and Serochem did not begin product development of PEI based transfection reagents until after Polysciences terminated the relationship. Serochem did not even have manufacturing equipment or manufacturing space at the time that Polysciences terminated the relationship. As summarized in detail above, Serochem developed its own products based on its own R&D process, which was based entirely on information that does not belong to and is not proprietary to Polysciences. The R & D and manufacture of the products, using only publicly available information and general chemistry knowledge, took place after the relationship with Polysciences had been terminated on September 6.

Law

In the unlikely event this does go to litigation, your client's claims are not legally supported. For example:

1. Your letter did not refer to any non-compete and/or non-solicitation agreements for a good reason; they do not exist. Mr. Masrud and Serochem are free to directly compete with Polysciences. As I assume you will confirm with your client, the courts do not allow claims of confidentiality and trade secret violations to act as ex post facto covenants not to compete or to obtain, through the back door of confidentiality and trade-secret laws, restrictions on competition that do not otherwise exist.

2. The Confidentiality and Proprietary Agreement that you referred to in your letter (which appears to have been signed after Mr. Masrud had already accepted and started the job) is unenforceable on its face for several reasons, including without limitation the following:

a. It is vague and overreaching. For example, critically, it does not even attempt to exclude information that is publicly available, generally known, readily ascertainable or within general chemistry skills and knowledge.

b. It attempts to protect information that does not derive independent economic value from its secrecy.

c. Polysciences has not made reasonable efforts to keep its alleged confidential information secret.

d. It fails in other ways to comply with whatever state or federal confidentiality and trade secret laws you might claim have been violated.

e. There are significant public policy issues. These products address a cure for cancer. Polysciences dramatically raised its prices, which damages this process. Polysciences' raise in prices may also be illegal. (I have not yet looked into the law on this, and hope I do not have to.)

f. As to your comment about legal fees and costs, I note that that legal fees and costs can be awarded to the prevailing defending party – especially if claims are not asserted in good faith.

In sum, Mr. Masrud and Serochem have many factual, legal and equitable defenses, some of which are listed above, and all of which are fully reserved and will be asserted in the unlikely

event of litigation. Given the information I am providing you in this letter, I hope you will advise your client and its owners that it should not proceed to litigation.

My clients hope this letter puts your client's concerns to rest and that their good relationships will continue. Mr. Masrud holds no ill will towards Polysciences. On the contrary, he enjoyed his time at Polysciences, holds respect for its owners and employees, and sincerely hopes that Serochem and Polysciences can collaborate in the future on meaningful and valuable projects.

Feel free to call me if you have any questions or want to discuss this further.

Very truly yours,

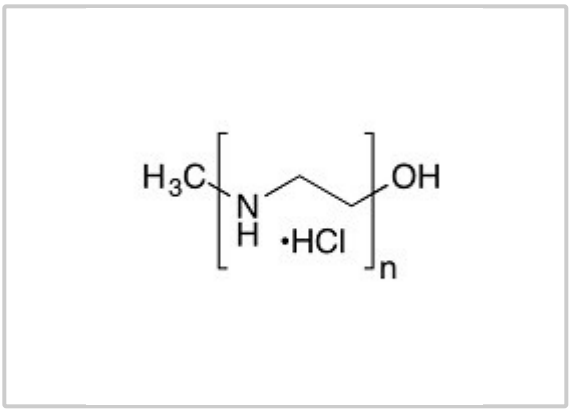
/s/ *Jeff*

Jeffrey B. Oberman

Exhibit 5

PRODUCTS

PEI MAX - Transfection Grade Linear Polyethylenimine Hydrochloride (MW 40,000)



View pricing for: **Americas/Asia**, Europe, Taiwan

Catalog No.	Packaging Size	Price	Quantity
24765-1	1 g	$345.00	0

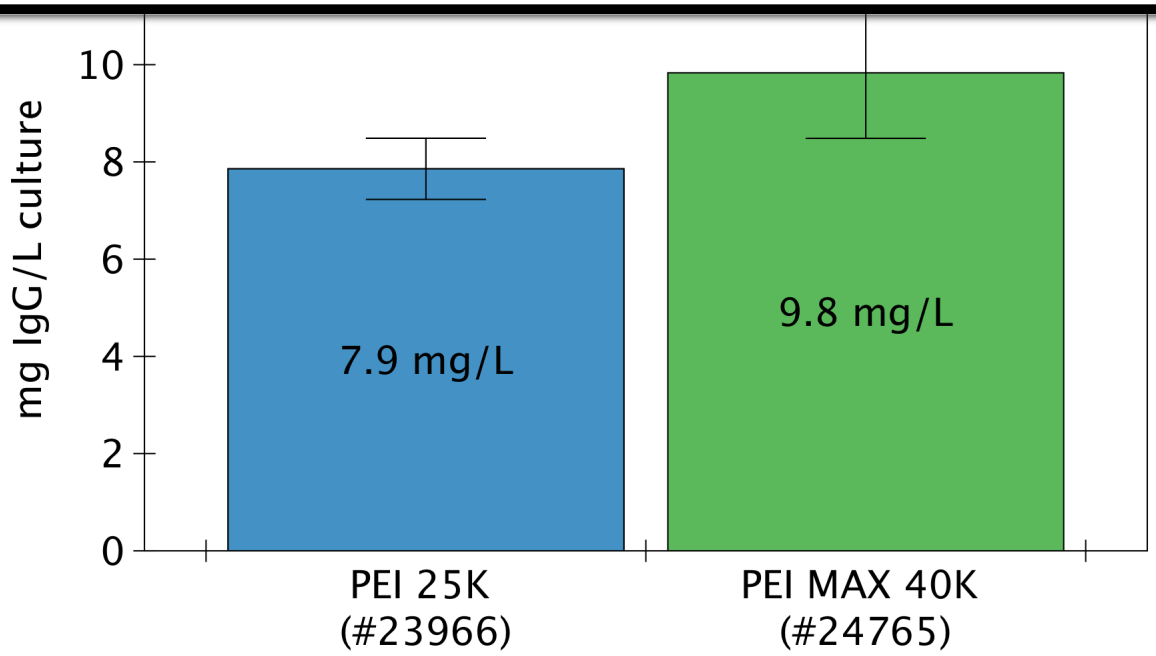
Add to Cart

Bulk Quote

DESCRIPTION

PEI MAX 40K (also known as PEI 22K in free base) is a powerful, trusted, and cost-effective transient transfection reagent. In HEK293 and CHO expression systems, PEI offers consistently high gene expression on a wide scale (96 well plates up to 100 L bioreactors). Each year, more researchers and companies turn to Polysciences PEI to gain an edge in their critical work. Relative to most other options, using PEI to prepare transfection reagents in-house can offer as much as a 40% reduction in total transfection costs.

PEI MAX 40K is easier to use and offers consistently higher titers than PEI 25K. PEI 25K transfection solutions typically take several hours to prepare, while PEI MAX 40K can be converted to a ready-to-use solution in under two hours. Additionally, PEI 25K contains 4-11% residual propionyl groups, which prevents the polymer backbone from strongly binding to DNA. PEI MAX 40K's fully depropionylated structure means each batch performs consistently higher.



Comparison of PEI 25K (#23966) and PEI MAX 40K (#24765).
Method: 10e6/mL HEK293 cells in 50 mL FS transfected with IgG64 plasmid pair. PEI:DNA 4:1. Samples taken 120 hpt. Quantified with Thermo Fisher #23310. N=4 each. Error bar = standard deviation.

A pre-made sterile-filtered solution of PEI MAX 40K is available as our Transporter 5™ Transfection Reagent.

CAS#: 49553-93-7
Molecular Weight: 40,000 (~22,000 free base)
Soluble In: Cold and room temperature water
Insoluble in: Common organic solvents (ethanol, acetone, tetrahydrofuran)
Appearance: White to off-white free flowing solid
Reference(s):

Baranyi, L. et al. Rapid Generation of Stable Cell Lines Expressing High Levels of Erythropoietin, Factor VIII, and an Antihuman CD20 Antibody Using Lentiviral Vectors. Human Gene Therapy Methods 24, 214–227 (2013). doi:10.1089/hgtb.2013.002

** Delafosse, L., Xu, P. & Durocher, Y. Comparative study of polyethylenimines for transient gene expression in mammalian HEK293 and CHO cells. Journal of Biotechnology 227, 103–111 (2016). doi:10.1016/j.jbiotec.2016.04.028

** Gutiérrez-Granados, S., Cervera, L., Segura, M. de las M., Wölfel, J. & Gòdia, F. Optimized production of HIV-1 virus-like particles by transient transfection in CAP-T cells. Applied Microbiology and Biotechnology 100, 3935–3947 (2016). doi:10.1007/s00253-015-7213-x

Kobayashi, S., Yoshii, K., Hirano, M., Muto, M. & Kariwa, H. A novel reverse genetics system for production of infectious West Nile virus using homologous recombination in mammalian cells. *Journal of Virological Methods 240*, 14–20 (2017). doi:10.1016/j.jviromet.2016.11.006

** Longo, P. a, Kavran, J. M., Kim, M. & Leahy, D. J. Transient Mammalian Cell Transfection wtih Polyethylenimine (PEI). *Methods Enzymology 529*, 227–240 (2013). doi:10.1016/B978-0-12-418687-3.00018-5.

** Stuible, M. et al. Optimization of a high-cell-density polyethylenimine transfection method for rapid protein production in CHO-EBNA1 cells. Journal of Biotechnology 281, 39–47 (2018). doi:10.1016/j.jbiotec.2018.06.307

Thomas M, Lu JJ, Ge Q, Zhang C, Chen J, Klibanov AM. (2005). Full deacylation of polyethylenimine dramatically boosts its gene delivery efficiency and specificity to mouse lung. *Proc Natl Acad Sci U S A.* 102(16):5679-84.

** Contains particularly useful information.

TSCA
Hazards: Irritant
Handling: Glove, chemical goggles & fume hood
Storage: Store at room temperature

MSDS / TECHNICAL DATA SHEETS / PRODUCT LITERATURE

MSDS Material Safety Datasheet 24765 (PDF)
DATA FT-IR Spectrum
DATA Example COA
LIT BSE/TSE Statement
LIT Transfection Reagent Preparation and Storage Recommendations

RELATED PRODUCTS

Transporter 5™ Transfection Reagent

Polyethylenimine, Linear, MW 25000, Transfection Grade (PEI 25K)

US Headquarters
Polysciences, Inc.
400 Valley Road
Warrington, PA 18976

1 (800) 523-2575 or (215) 343-6484
fax: 1 (800) 343-3291 or (215) 343-0214
info@polysciences.com

European Sales and Distribution
Polysciences Europe GmbH
Badener Str. 13
69493 Hirschberg an der Bergstrasse, Germany

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+(49) 6201 845 20 20 fax
info@polysciences.de

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Taipei, Taiwan 10595

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(886) 2 8712 2677 fax
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Exhibit 6

PRODUCTS

PEI MAX® - Transfection Grade Linear Polyethylenimine Hydrochloride (MW 40,000)

View pricing for: **Americas/Asia**, Europe, Taiwan

Catalog No.	Packaging Size	Price	Quantity
24765-1	1 g	$1,035.00	0

Add to Cart

Bulk Quote

DESCRIPTION

PEI MAX 40K (also known as PEI 22K in free base) is a powerful, trusted, and cost-effective transient transfection reagent. In HEK293 and CHO expression systems, PEI offers consistently high gene expression on a wide scale (96 well plates up to 100 L bioreactors). Each year, more researchers and companies turn to Polysciences PEI to gain an edge in their critical work. Relative to most other options, using PEI to prepare transfection reagents in-house can offer as much as a 40% reduction in total transfection costs.

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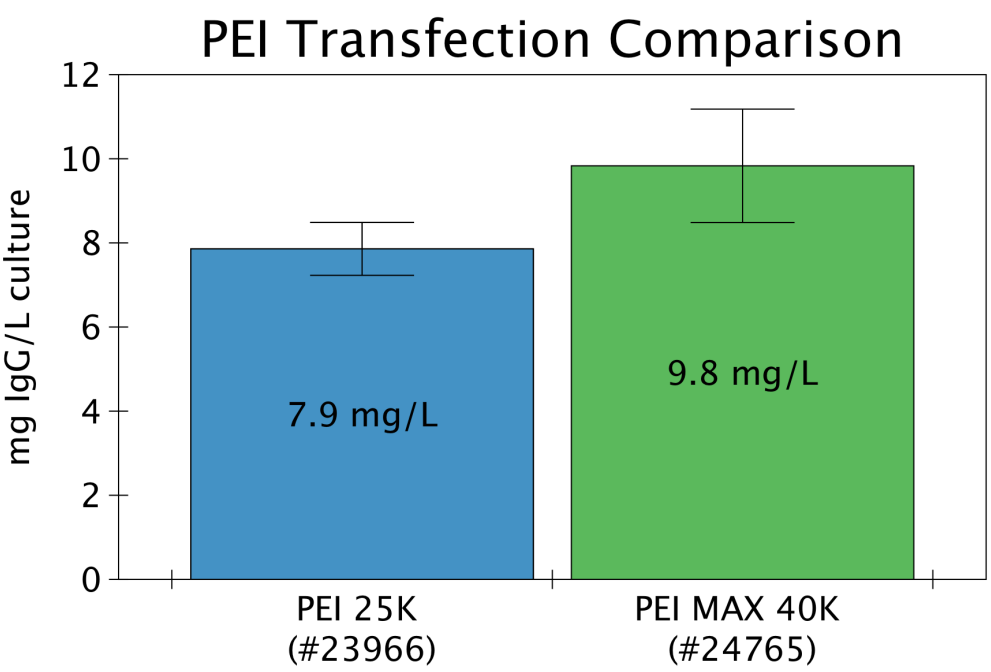

Comparison of PEI 25K (#23966) and PEI MAX 40K (#24765).
Method: 10e6/mL HEK293 cells in 50 mL FS transfected with IgG64 plasmid pair. PEI:DNA 4:1. Samples taken 120 hpt. Quantified with Thermo Fisher #23310. N=4 each. Error bar = standard deviation.

A pre-made sterile-filtered solution of PEI MAX 40K is available as our Transporter 5™ Transfection Reagent.

CAS#: 49553-93-7
Molecular Weight: 40,000 (~22,000 free base)
Soluble In: Cold and room temperature water
Insoluble in: Common organic solvents (ethanol, acetone, tetrahydrofuran)
Appearance: White to off-white free flowing solid
Reference(s):

Baranyi, L. et al. Rapid Generation of Stable Cell Lines Expressing High Levels of Erythropoietin, Factor VIII, and an Antihuman CD20 Antibody Using Lentiviral Vectors. Human Gene Therapy Methods 24, 214–227 (2013). doi:10.1089/hgtb.2013.002

** Delafosse, L., Xu, P. & Durocher, Y. Comparative study of polyethylenimines for transient gene expression in mammalian HEK293 and CHO cells. Journal of Biotechnology 227, 103–111 (2016). doi:10.1016/j.jbiotec.2016.04.028

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Kobayashi, S., Yoshii, K., Hirano, M., Muto, M. & Kariwa, H. A novel reverse genetics system for production of infectious West Nile virus using homologous recombination in mammalian cells. *Journal of Virological Methods 240*, 14–20 (2017). doi:10.1016/j.jviromet.2016.11.006

** Longo, P. a, Kavran, J. M., Kim, M. & Leahy, D. J. Transient Mammalian Cell Transfection wtih Polyethylenimine (PEI). *Methods Enzymology 529*, 227–240 (2013). doi:10.1016/B978-0-12-418687-3.00018-5.

Mann JF, McKay PF, Arokiasamy S, Patel RK, Klein K, Shattock RJ. (2013). Pulmonary delivery of DNA vaccine constructs using deacylated PEI elicits immune responses and protects against viral challenge infection. J Control Release. 170(3):452-9.

Pinnapireddy, S. R., Duse, L., Strehlow, B., Schäfer, J., & Bakowsky, U. (2017). Composite liposome-PEI/nucleic acid lipopolyplexes for safe and efficient gene delivery and gene knockdown. *Colloids and Surfaces B: Biointerfaces*, *158*, 93-101.

** Stuible, M. et al. Optimization of a high-cell-density polyethylenimine transfection method for rapid protein production in CHO-EBNA1 cells. Journal of Biotechnology 281, 39–47 (2018). doi:10.1016/j.jbiotec.2018.06.307

Thomas M, Lu JJ, Ge Q, Zhang C, Chen J, Klibanov AM. (2005). Full deacylation of polyethylenimine dramatically boosts its gene delivery efficiency and specificity to mouse lung. *Proc Natl Acad Sci U S A.* 102(16):5679-84.

** Contains particularly useful information.

Hazards: Irritant
Handling: Glove, chemical goggles & fume hood
Storage: Store at room temperature

MSDS / TECHNICAL DATA SHEETS / PRODUCT LITERATURE

MSDS Material Safety Datasheet 24765 (PDF)

DATA FT-IR Spectrum

LIT PEI Transfection Reagents

RELATED PRODUCTS

Transporter 5™ Transfection Reagent

MAXgene™ GMP Transfection Reagent

Polyethylenimine, Linear, MW 25000, Transfection Grade (PEI 25K™)

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Polysciences, Inc.
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Warrington, PA 18976

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(215) 343-6484
fax: 1 (800) 343-3291 or
(215) 343-0214
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Exhibit 7

PRODUCTS

Transporter 5™ Transfection Reagent

View pricing for: **Americas/Asia**, Europe, Taiwan

Catalog No.	Packaging Size	Price	Quantity
26008-5	5 mL	$95.00	0
26008-50	50 mL	$495.00	0

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Bulk Quote

DESCRIPTION

Transporter 5™ is a premium ready-to-use transfection reagent prepared from our popular linear polyethylenimine MAX (PEI MAX 1 mg/mL). Transporter 5™ effectively transfects mammalian and insect cells, especially HEK-293, CHO, and Sf9.

We understand every transfection is a major investment, so we designed Transporter 5™ to be a reliable reagent in any process.

The quality of Transporter 5™ begins with our production process. Our special production method for PEI creates pure polymer with no batch-to-batch molecular weight variation. Transporter 5™ combines our consistent PEI with the highest quality USP/NF reagents in sterile, single-use equipment. While standard methods use 0.2µm sterile-filters, we use 0.1µm to completely eliminate mycoplasma risk.

Our Quality Control ensures Transporter 5™ is the most reliable reagent available. We developed our own scientifically-sound, quantitative performance assay for Transporter 5™. Most commercial performance assays are based on qualitative assays like SEAP and GFP. These assays cannot ensure the high titers most scientists

Appearance: Liquid
Reference(s):

Rajendra, Y., Kiseljak, D., Baldi, L., Wurm, F. M. and Hacker, D. L. (2015), Transcriptional and post-transcriptional limitations of high-yielding, PEI-mediated transient transfection with CHO and HEK-293E cells. *Biotechnol Progress, 31*: 541–549. doi: 10.1002/btpr.2064

Longo, P. A., Kavran, J. M., Kim, M. & Leahy, D. J. Transient Mammalian Cell Transfection wtih Polyethylenimine (PEI). *Methods Enzymology 529*, 227–240 (2013). doi:10.1016/B978-0-12-418687-3.00018-5.

Wulhfard, S., Baldi, L., Hacker, D. L. & Wurm, F. Valproic acid enhances recombinant mRNA and protein levels in transiently transfected Chinese hamster ovary cells. *Journal of Biotechnology 148*, 128–132 (2010). doi:10.1016/j.jbiotec.2010.05.003

Backliwal, G., Hildinger, M., Hasija, V. and Wurm, F. M. (2008), High-density transfection with HEK-293 cells allows doubling of transient titers and removes need for a priori DNA complex formation with PEI. *Biotechnol. Bioeng., 99*: 721–727. doi: 10.1002/bit.21596

Backliwal, G. et al. Rational vector design and multi-pathway modulation of HEK 293E cells yield recombinant antibody titers exceeding 1 g/l by transient transfection under serum-free conditions. *Nucleic Acids Research 36*, e96–e96 (2008). doi:10.1093/nar/gkn423

Tom, R., Bisson, L. & Durocher, Y. Transfection of HEK293-EBNA1 cells in suspension with linear PEI for production of recombinant proteins. *Cold Spring Harbor Protocols 3*, 1–5 (2008). doi:10.1101/pdb.prot4977

Choosakoonkriang, S., Lobo, B. A., Koe, G. S., Koe, J. G. and Middaugh, C. R. (2003), Biophysical characterization of PEI/DNA complexes. *J. Pharm. Sci., 92*: 1710–1722. doi: 10.1002/jps.10437

Expired Patent: US6013240; Nucleic Acid Containing Composition, Preparation, and Uses of the Same

Hazards: Harmless, use normal precautions
Handling: Gloves & chemical googles
Storage: Store at 4 degree C; do not freeze. Shipped at room temperature (RT).

MSDS / TECHNICAL DATA SHEETS / PRODUCT LITERATURE

MSDS	MSDS
DATA	Data Sheet #1024
LIT	Flyer
LIT	BSE/TSE Statement

RELATED PRODUCTS

Polyethylenimine, Linear, MW 25000, Transfection Grade (PEI 25K)

PEI MAX - Transfection Grade Linear Polyethylenimine Hydrochloride (MW 40,000)

US Headquarters
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Exhibit 8

PRODUCTS

Transporter 5™ Transfection Reagent

View pricing for: **Americas/Asia**, Europe, Taiwan

Catalog No.	Packaging Size	Price	Quantity
26008-5	5 mL	$285.00	0
26008-50	50 mL	$1,185.00	0

Add to Cart

Bulk Quote

DESCRIPTION

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Our Quality Control ensures Transporter 5™ is the most reliable reagent available. We developed our own scientifically-sound, quantitative performance assay for Transporter 5™. Most commercial performance assays are based on qualitative assays like SEAP and GFP. These assays cannot ensure the high titers most scientists require. The few reagents that are tested quantitatively typically use undisclosed HDAC inhibitors to improve results.

Transporter 5™ is required to produce high titers without any supplementation. Even after initial quality control, we continuously monitor performance to ensure each batch is as good as when it was created.

Appearance: Liquid
Reference(s):

Rajendra, Y., Kiseljak, D., Baldi, L., Wurm, F. M. and Hacker, D. L. (2015), Transcriptional and post-transcriptional limitations of high-yielding, PEI-mediated transient transfection with CHO and HEK-293E cells. *Biotechnol Progress, 31*: 541–549. doi: 10.1002/btpr.2064

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Expired Patent: US6013240; Nucleic Acid Containing Composition, Preparation, and Uses of the Same

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